LINE LINK

RL

-48 — GO-9 (6 5B) — DS (2 3B) — RE (3 X 4T) — AC (X 4) — TRL (1 2T) — DK" — M (4 X 3B)

DS (3 4T) — RL (1 2B) — HC 2 (9 X 10T) — DM"

INCOMING TRUNK

A (A X 2B) — D (7 8B) — "ST"

TERMINATING SENDER LINK

G

GB — MAKE BUSY JACK

GST — -48

GST (4 X 5T) — 16" — MULT. TO SAME CONTACT ON ALL OTHER GST RELAYS, SAME FRAME.

DL INTERRUPTER

.26 SEC.	.011 SEC.	.218 SEC.	.011 SEC.	.26 SEC.

B F — ONE CYCLE

DL — F — B — 8A — INT. FR.

B" — M (2 1B)

A"

N (-48) — S-1750 P-850 — N1 (1 X 2T) — (1 X) W (2) — 3B

N1 (-48) — P-850 S-1750 — N1 (1 X 2B)

N X 2 1B

3T — 1 — 2 X W

Z X 1 — 2 — 3B — F (600 600 -48) — W 1000 — Z 950

(1 X) 2 — Z — 3T — W (4 5T) — N (2 X 1T)

M (2 X 1T) — DL REG. (1 X A)

M 2500 — -48

DL REG. 1000 — M (4 X 3T)

(ONE PER LINE LINK FR. ONE PER TERM. SENDER LINK FR.)

ISSUE	1	M.B.
DATE		3.8.54

TRAFFIC REGISTERS

DELAY REGISTERS

OS 601-1

5 SHEETS, SHEET 1

NO. 1 CROSSBAR

5 SHEETS, SHEET 1

38-Y-4263

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38-Y-4263 5 SHEETS, SHEET 2

ISSUE	DATE
1 M18	3-6-54

① OUTGOING TRUNK GROUP PEG COUNT
ONE PER TRUNK GROUP

② DISTRICT JUNCTOR PEG COUNT
ONE PER CLASS OF DISTRICT
PER DISTRICT FRAME

③ INCOMING LINK PEG COUNT
ONE PER INCOMING FRAME

④ NUMBER GROUP PEG COUNT
ONE PER NUMBER GROUP

⑤ TIME ANNOUNCE TRUNK PEG COUNT
ONE PER 20 TRUNKS

⑥ TERMINATING MARKER PEG COUNT
ONE PER MARKER

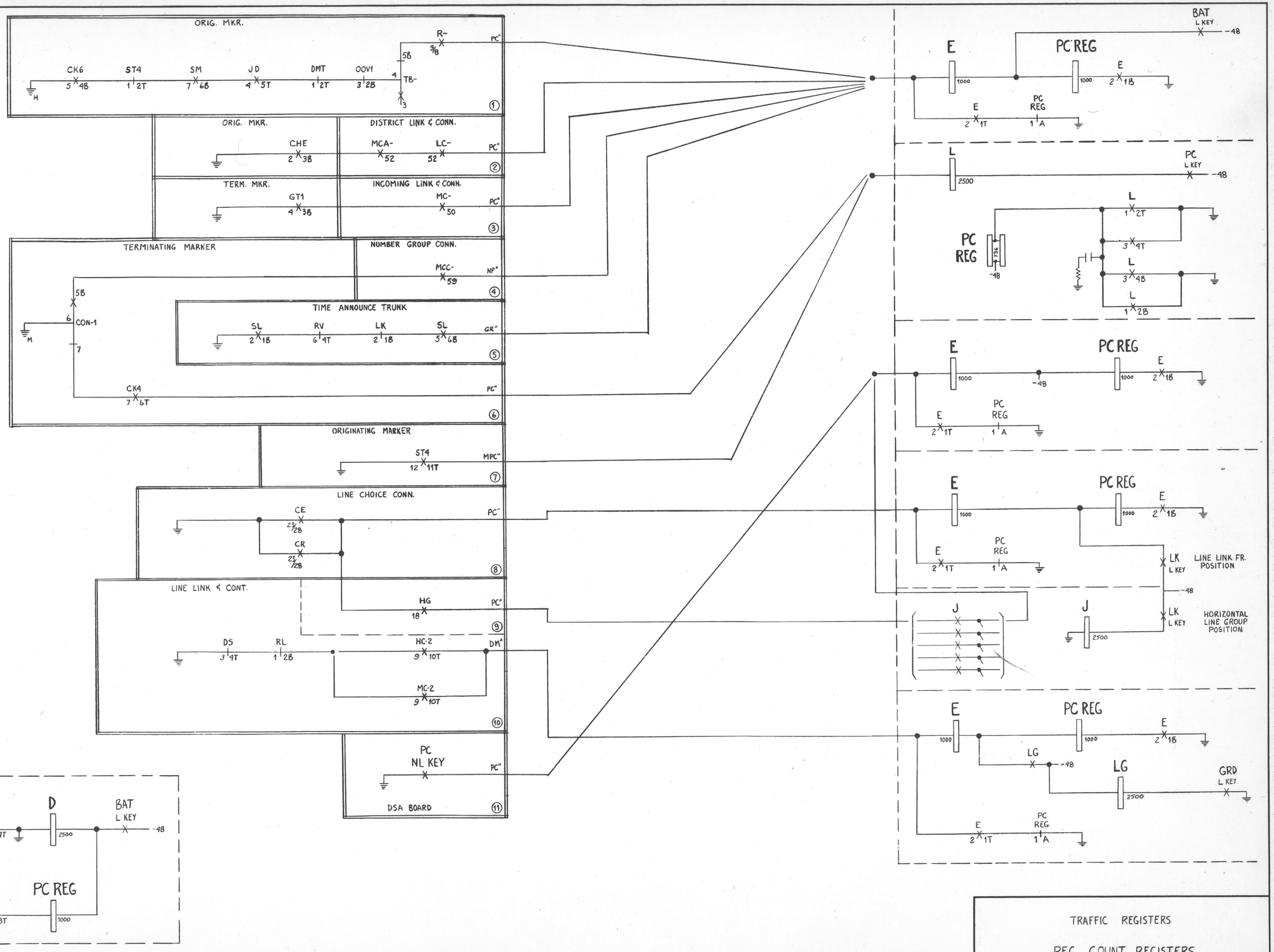
⑦ ORIGINATING MARKER PEG COUNT
ONE PER MARKER

⑧ LINE LINK FRAME TERMINATING PEG COUNT
ONE PER LINE LINK FRAME

⑨ HORIZONTAL LINE GROUP PEG COUNT
ONE PER HORIZONTAL GROUP

⑩ LINE LINK FRAME ORIGINATING PEG COUNT
ONE PER LINE LINK FRAME

⑪ DSA POSITION PEG COUNT
ONE PER POSITION



TRAFFIC REGISTERS

PEG COUNT REGISTERS

NO 1 CROSSBAR | OS 601-1 | 5 SHEETS, SHEET 2

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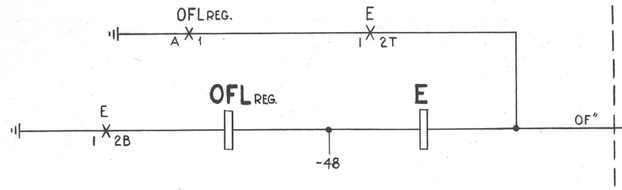
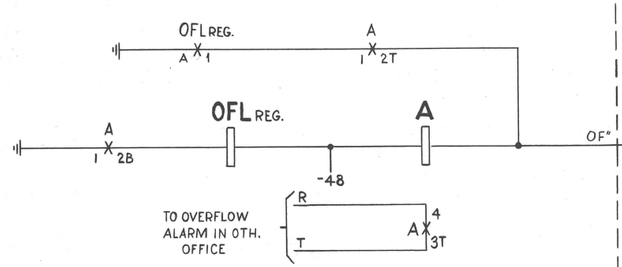
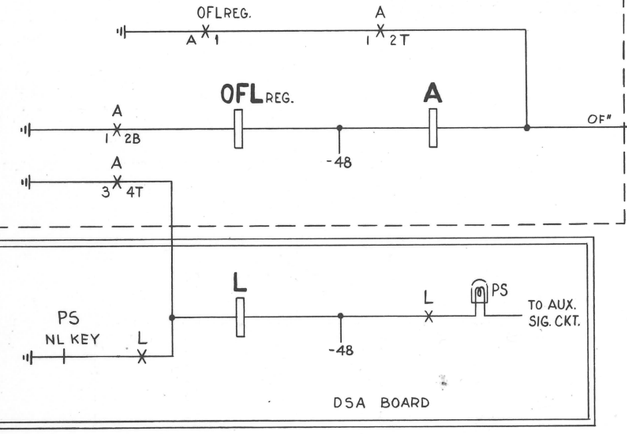
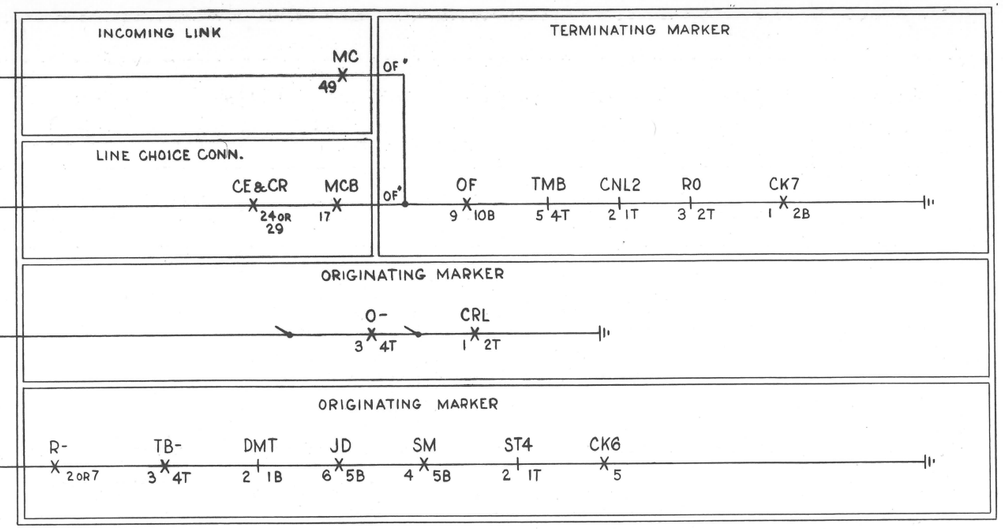
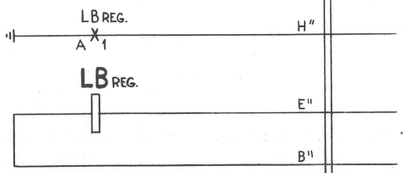


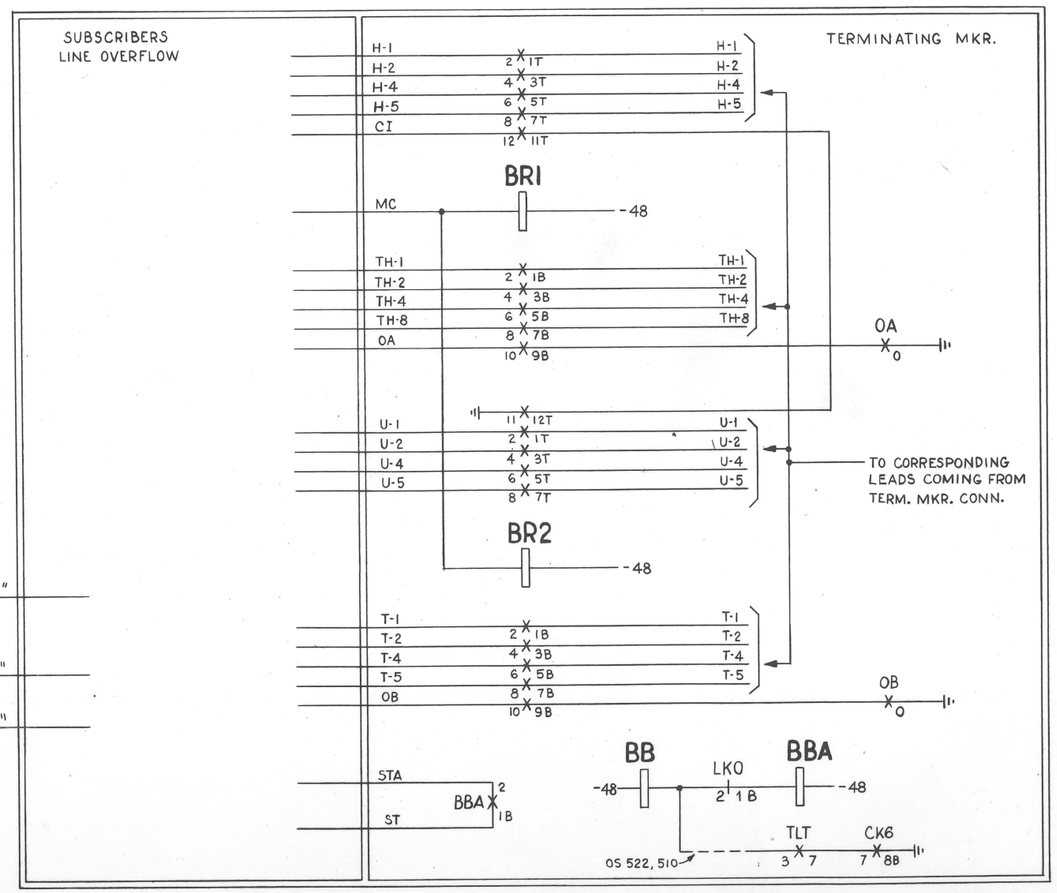






1. INCOMING LINK OVERFLOW
   ONE REG.CKT. PER INCOMING FRAME
2. LINE LINK OVERFLOW
   ONE REG.CKT. PER PAIR OF LINE LK. FRS.
3. OFFICE OVERFLOW
   ONE REG.CKT. PER PAIR OF OFFICE FRS.
4. OUTGOING TRUNK GROUP OVERFLOW
   ONE REG.CKT. PER TRUNK GROUP.
5. CALL INDICATOR OVERFLOW
   ONE REG.CKT. PER TRUNK GROUP
6. PERMANENT SIGNAL OVERFLOW
   ONE REG.CKT. PER TRUNK GROUP





ISSUE	1	M.S.
DATE	3/9/54	

TRAFFIC REGISTERS
OVERFLOW REGISTERS

OS601-1 | 5 SHEETS, SHEET 3 | NO. 1 CROSSBAR

5 SHEETS, SHEET 3

38-Y-4263

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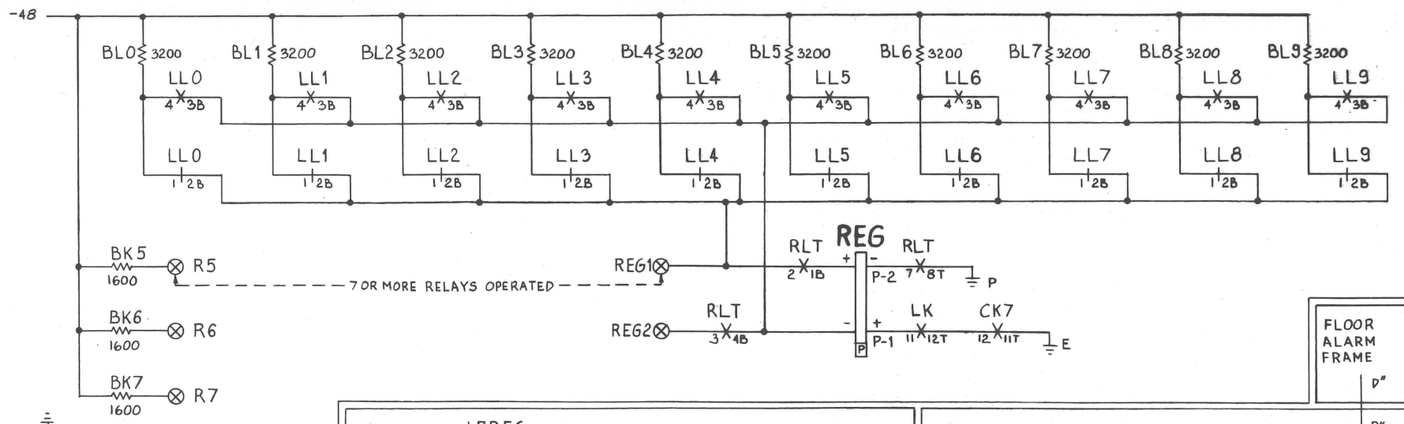
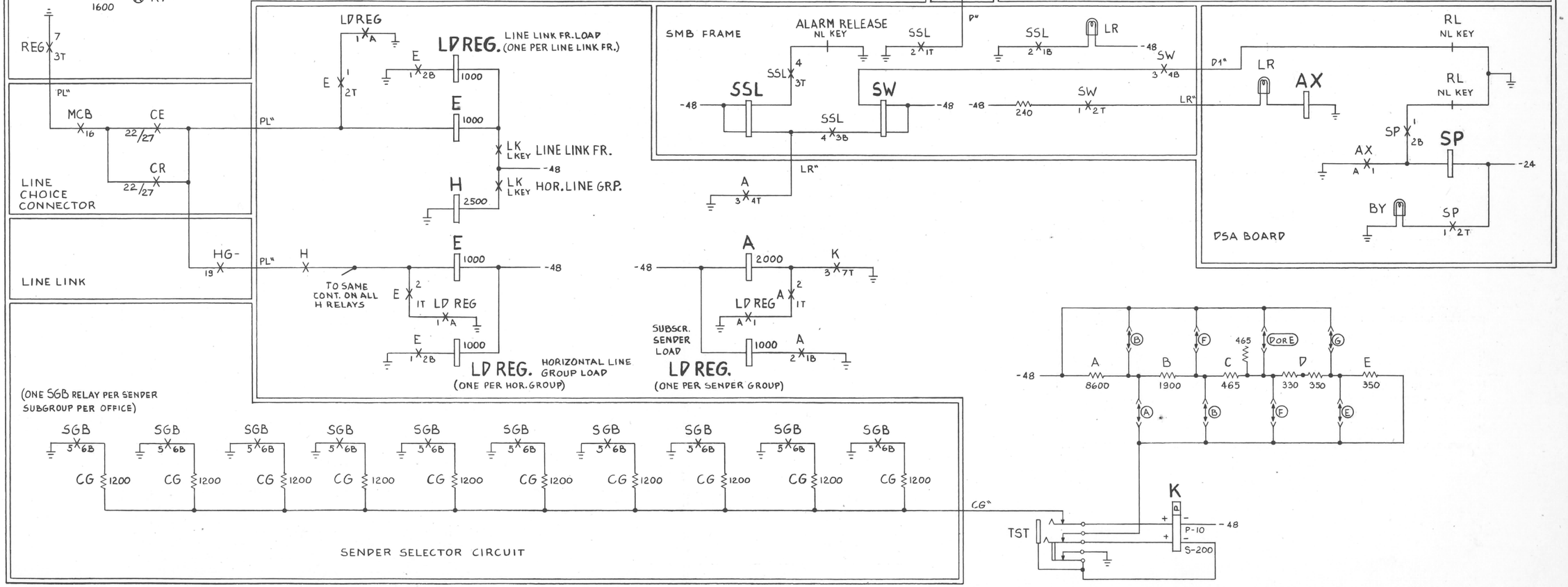


TERMINATING MARKER

MARKER CROSS-CONNECTIONS FOR PERCENT LOAD REGISTRATION		LOAD CONDITIONS				
		NON-REGISTRATION			REGISTRATION	
NUMBER OF BUSY LINKS OR LL RELAYS OPERATED	CONNECT TO CAUSE REGISTRATION	NUMBER OF LL RELAYS OPERATED	REG. RELAY NON-OPERATE RESISTANCE CONDITIONS P1	P2	NUMBER OF LL RELAYS OPERATED	REG. RELAY OPERATE RESISTANCE CONDITIONS P1	P2
3 OR MORE	R5, R6, R7 TO REG.2	2	400	400	3	355	457
4 " "	R5, R6 TO REG.2	3	457	457	4	400	533
5 " "	R5 TO REG.2	4	533	533	5	457	640
6 " "	NONE	5	640	640	6	533	800
7 " "	R5 TO REG.1	6	533	533	7	457	640
8 " "	R5, R6 TO REG.1	7	457	457	8	400	533
9 " "	R5, R6, R7 TO REG.1	8	400	400	9	355	457



TRAFFIC REGISTER CKT. SD-25317-01, ISS. 3 P

TRAFFIC REGISTERS
LOAD REGISTERS

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ISSUE	1	M.B.
DATE	3-10-54	

TB
-48
TB
4 X 3T
ASB RELEASE NL KEY
TB
-48
TB
1 X 2T
TB
2 X 1B
BB
2 X 1B
TO ALARM CIRCUIT
TERMINATING TROUBLE INDICATOR
BB
-48
BB
4 X 3T
ASB RELEASE NL KEY
BB
-48
BB
1 X 2T
FLOOR ALARM FRAME
SB
-48
SB
4 X 3T
ASB RELEASE NL KEY
SB
-48
SB
1 X 2T
SB
2 X 1B
CB
2 X 1B
TO ALARM CIRCUIT
SENDER MAKE BUSY
CB
-48
CB
4 X 3T
ASB RELEASE NL KEY
CB
-48
CB
1 X 2T

FIRST | INT. | LAST

TGB | TGB | TGB
7 X 6B | 7 X 6B | 7 X 6B
TGB"
TB"
TERMINATING SENDER LINK
①
A
4 X 3T
BB"
②
BGB | BGB | BGB
7 X 6B | 7 X 6B | 7 X 6B
BGB"
"A" SWBD. SENDER LINK
SGB | SGB | SGB
7 X 6B | 7 X 6B | 7 X 6B
SG"
GB"
③
COIN CONTROL LINK
④
SGB | SGB | SGB
7 X 6B | 7 X 6B | 7 X 6B
SG"

GB REG E
A X 1 | 1 X 2T
E
1000
-48
GB REG
1000
E
2 X 1B
(ONE PER DISTRICT JUNCTOR GROUP)
DISTRICT JUNCTOR GROUP BUSY
D"

SUBSCRIBER SENDER LINK
DA OR DB | TM | TE | SL
9 X 10B | 2 X 1T | 3 X 2T | X 4

A GB REG.
2 X 1T | 1 X A
A
2000
-48
GB REG.
A
1 X 2B
1000

TST B
TEST JACK
2500
-48
GB REG
1000
B
2 X 1T
(ONE PER TRUNK GROUP)
TRUNK GROUP BUSY

① TERMINATING SENDER GROUP BUSY
ONE REG. CKT. PER SENDER GROUP
② "B" OR DIALING SENDER GROUP BUSY
ONE REG. CKT. PER SENDER GROUP
③ "A" SWITCHBOARD SENDER GROUP BUSY
ONE REG. CKT. PER SENDER GROUP
④ COIN CONTROL GROUP BUSY
ONE REG. CKT. PER COIN CONTROL GROUP

"A" SWBD. OUTGOING TRUNK
PB"
D | SL
INCOMING TRUNK TOLL
PB"
D2
INCOMING TRUNK TANDEM
PB"
D
3 X 1T
MISCELLANEOUS TRUNKS
PB"

TRAFFIC REGISTERS
GROUP BUSY REGISTERS

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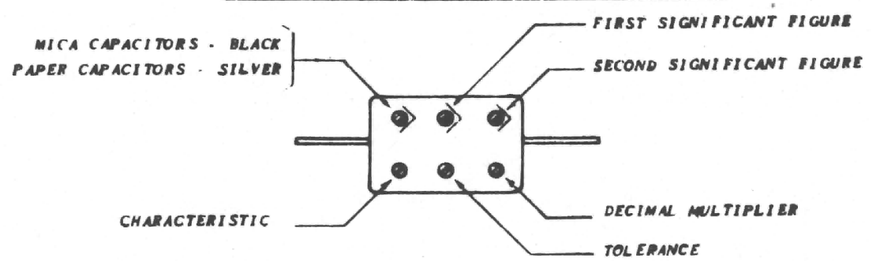
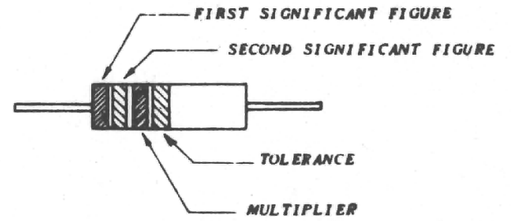
COLOR CODES FOR CAPACITORS AND RESISTORS

JAN* COLOR CODES FOR FIXED CAPACITORS
(CAPACITANCE VALUES IN MICROMICROFARADS)



COLOR	SIGNIFICANT FIGURE	DECIMAL MULTIPLIER	TOLERANCE	CHARACTERISTIC (SEE TABLE A)
BLACK	0	1	20%	A
BROWN	1	10	-	B
RED	2	100	2%	C
ORANGE	3	1000	-	D
YELLOW	4	-	-	E
GREEN	5	-	-	F
BLUE	6	-	-	G
VIOLET	7	-	-	
GRAY	8	-	-	
WHITE	9	-	-	
GOLD	-	0.1	5%	
SILVER	-	0.01	10%	

JAN* AND RMA+ COLOR CODES FOR FIXED COMPOSITION RESISTORS
(RESISTANCE VALUES IN OHMS)



COLOR	SIGNIFICANT FIGURE	MULTIPLIER	TOLERANCE
BLACK	0	1.0	-
BROWN	1	10	-
RED	2	100	-
ORANGE	3	1,000	-
YELLOW	4	10,000	-
GREEN	5	100.000	-
BLUE	6	1,000,000	-
VIOLET	7	10,000,000	-
GRAY	8	100,000,000	-
WHITE	9	1,000,000,000	-
GOLD	-	0.1	± 5 per cent
SILVER	-	0.01	± 10 per cent
NO COLOR	-	-	± 20 per cent

ISSUE
DATE

TABLE A

CHARACTERISTIC	Q	TEMPERATURE COEFFICIENT PARTS/MILLION/DEGREE C	MAXIMUM CAPACITANCE DRIFT
A	NOT SPECIFIED	NOT SPECIFIED	NOT SPECIFIED
B	SPECIFIED	NOT SPECIFIED	NOT SPECIFIED
C	SPECIFIED	-200 to +200	0.5 per cent
D	SPECIFIED	-100 to +100	0.2 per cent
E	SPECIFIED	0 to +100	0.05 per cent
F	SPECIFIED	0 to +50	0.025 per cent
G	SPECIFIED	0 to +50	0.025 per cent

* JOINT ARMY-NAVY + RADIO MANUFACTURERS ASSOCIATION

NO. 1 CROSSBAR

COLOR CODES FOR CAPACITORS & RESISTORS

AMERICAN TELEPHONE & TELEGRAPH CO.

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DATA FOR COLD-CATHODE TUBES

CODE	NUMBER OF ELEMENTS	STARTER GAP		MAIN GAP		MAXIMUM TRANSFER CURRENT μA. DC (Anode at 130V)	FORWARD CURRENT MILLIAMPERES DC FOR LIFE OF				PEAK INVERSE CURRENT	NOMINAL DEIONIZATION TIME MILLISECONDS		MAXIMUM DIMENSIONS INCHES		WESTERN ELECTRIC SOCKET	SCHEMATIC DIAGRAM NUMBER	CODE
		Nominal Breakdown Volts DC	Nominal Sustaining Volts DC (At 20 Ma.)	Minimum Breakdown Volts DC	Nominal Sustaining Volts DC (At 20 Ma.)		10 Hrs.	100 Hrs.	1000 Hrs.	10000 Hrs.	Ma. DC	Main Gap	Starter Gap	Height	Diam.			
313C	3	70	60	150	75	5	100	35	20	10	5	10	3	3-13/32	1-3/16	143B	1	313C
313CA	3	72	60	200	75	5	72	25	14	7	5	10	3	3-13/32	1-3/16	143B	1	313CA
313CB	3	70	60	185	76	5	72	25	14	7	5	10	3	3-13/32	1-3/16	143B	1	313CB
313CC	3	72	60	170	75	5	72	25	14	7	5	10	3	3-13/32	1-3/16	143B	1	313CC
313CD	3	72	60	-	-	5	72	25	14	7	5	10	3	3-13/32	1-3/16	143B	1	313CD
333A	3	70	60	150	75	5	100	35	20	10	5	10	3	3-3/32	1-3/16	Bkt. Mtg.	2	333A
346B	3	70	60	225	80	200†	100	35	20	10	5	8	2	3-15/32	1-3/16	Bkt. Mtg.	3	346B
353A	3	70	60	150	75	5	100	35	20	10	5	-	-	3-3/32	1-3/16	Bkt. Mtg.	3	353A
353B	3	70	60	165	75	5	100	35	20	10	5	10	3	3-3/32	1-3/16	Bkt. Mtg.	3	353B
358A	2	70	60	-	-	-	50	18	10	5	-	-	-	1-13/16	3/4	None	4	358A
359A	3	75	60*	180	75*	50	40	15	8	4	1	8*	2*	2-21/32	1/2	None	5	359A
372A	3	70	60	150	75	5	100	35	20	10	5	10	3	3-3/32	1-3/16	Bkt. Mtg.	2	372A
376B	3	80	60	275	65	200	100	60	35	17	5	5	1	4-1/8	1-3/16	Octal	6	376B
395A	3	77	60*	155	75*	5	35	13	7	4	1	10*	3*	3-1/4	1/2	None	5	395A
430A	3	70	60	185	75	5	-	-	-	-	5	10	3	3-13/32	1-3/16	143B	1	430A
OA2	2	185	150	-	-	-	-	-	-	-	-	-	-	-	-	Octal	8	OA2
OA3/VR75	2	100	75	-	-	-	-	-	-	-	-	-	-	-	-	Octal	7	OA3/VR75
OB2	2	133	108	-	-	-	-	-	-	-	-	-	-	-	-	Octal	8	OB2
OC3/VR105	2	115	105	-	-	-	-	-	-	-	-	-	-	-	-	Octal	7	OC3/VR105
OD3/VR150	2	160	150	-	-	-	-	-	-	-	-	-	-	-	-	Octal	7	OD3/VR150

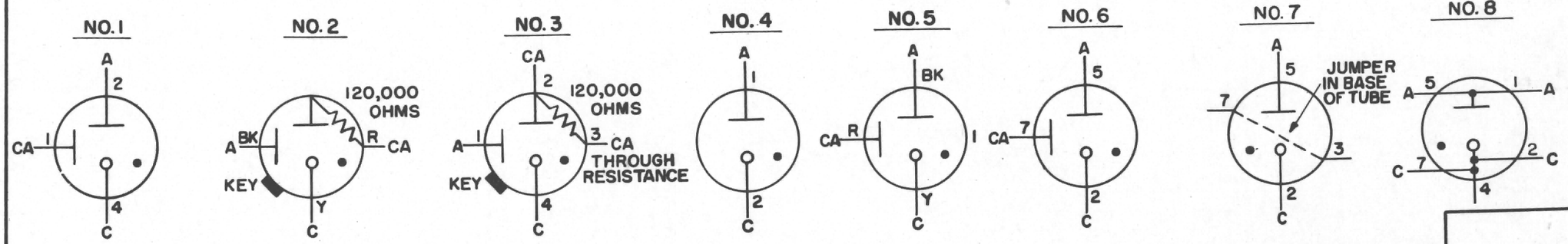
KEY TO SYMBOLS AND ABBREVIATIONS:

Bkt. Mtg. – Bracket Mounting
DC – Direct Current
Diam. – Diameter
Hrs. – Hours
Ma. – Milliamperes
μA – Microamperes
* – At 10 Milliamperes DC
† – Anode at 110V

KEY TO ABBREVIATIONS AND SYMBOLS

C – Cathode
CA – Control Anode
Y – Lead Out Wire – Yellow
R – Lead Out Wire – Red
BK – Lead Out Wire – Black
A – Main Anode
● – Gas Filled

SCHEMATIC DIAGRAMS



ISSUE
DATE

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DATA FOR
COLD - CATHODE TUBES